

Component	VIA Wt. %	VIB Wt. %
60/40 PVP/VA	5.0	5.0
Sodium Tripolyphosphate	2.0	2.0
Sodium Saccharin	0.5	0.5
Urea Peroxide	—	15.0
Ethanol	32.5	—
Water	60.0	—
Glycerin	—	35.0
PEG	—	42.5

Example VII

Chewing Gum

Chewing gum compositions including a coated chewing gum (VIIC) according to the present invention are shown below.

Component	VIIA	VIIB
Xylitol	16.700	16.700
Gum base (e.g., Prestige-PL, Cafosa)	28.000	28.000
60/40 PVP/VA	5.000	3.000
Sodium tripolyphosphate	5.000	7.000
Hydrogenated starch hydrolysate (85% solids)	8.000	8.000
Glycerin	7.000	7.000
Mannitol	5.000	5.000
Flavor	1.600	1.600
Aspartame	0.200	0.200
Spray dried menthol	0.150	0.150
Sorbitol	QS	QS

Making Instructions

Example VIIA and VIIB

Heat gum base to -45° C. to soften. Maintain mixer vessel cavity at -45° C. during entire mixing process. Add gum base to mixing cavity of double sigma blade mixer and mix for 5 minutes. Add mannitol and spray-dried menthol. Mix for 2 minutes. Add 50% of sorbitol and mix for 2 minutes. Add glycerin and mix for 2 minutes. Add 50% of xylitol and mix for 2 minutes. Add hydrogenated starch hydrolysate and mix for 5 minutes. Add second 50% sorbitol and mix for 3 minutes. Add second 50% of xylitol, PVP/VA, sodium tripolyphosphate and aspartame and mix for 3 minutes. Add flavor and mix for 3 minutes.

VIIC Component	Core % w/w 1 g/piece	Coating % w/w 0.35 g/piece	Total % w/w 1.35 g/piece
Sorbitol	49.35	—	36.56
Gum base ¹	25.0	—	18.52
PVP/VA 60/40	5.0	—	3.70
Sodium tripolyphosphate	5.0	—	3.70
Sodium fluoride	—	0.08	0.02
Hydrogenated Starch Hydrolysate	5.0	—	3.70
Mannitol	2.0	—	1.48
Glycerin	5.0	—	3.70
Titanium dioxide	—	2.0	0.52
Flavor	2.0	2.0	2.00
Additional spray-dried flavor	1.5	—	1.11
Sucralose	0.05	0.03	0.05
Potassium Acesulfame	0.10	0.10	0.10
Sorbitol ²	—	95.25	24.70
Polysorbate 60	—	0.30	0.08

-continued

VIIC Component	Core % w/w 1 g/piece	Coating % w/w 0.35 g/piece	Total % w/w 1.35 g/piece
Insoluble edible glitter ³ (Brilliant Blue)	—	0.04	0.01
Wax ⁴	—	0.20	0.05
TOTAL	100.00	100.00	100.00

¹Comprises several ingredients, including pre-supplied gum bases from suppliers such as L. A. Dreyfus Company, 3775 Park Avenue, Edison, N. Jersey, US; Cafosa Gum, Calabria 267, 08029, Barcelona, Spain, etc.

²Level of Sorbitol refers to absolute level after drying; Sorbitol is added as a 70% aqueous solution

³Watson Foods Company Incorporated, 301 Heffernan Drive, West Haven, Connecticut, USA

⁴Level of wax refers to absolute level after drying wax is added as a 28% ethanolic solution; wax used comprises several ingredients such as that supplied by Kaul GmbH, Elmshorn, Germany

Making Instructions

20 Core Formulation

Soften gum base with gentle heating and add mannitol, spray-dried flavor, glycerin, 50% of xylitol, hydrogenated starch hydrolysate, 50% of sorbitol and mix thoroughly. Add second 50% of sorbitol and mix for 2 minutes. Add second 50% of xylitol, sodium tripolyphosphate, PVP/VA and aspartame, remainder of flavor and mix further. Form bulk chewing gum mass into discrete pieces of desired shape and size using rolling and scoring equipment.

Coating Solution

30 Add titanium dioxide and Polysorbate 60 to 70% aqueous sorbitol solution and mix. Add flavor followed by Sucralose and Potassium Acesulfame and mix further.

Coating of Core Formulation

35 Place gum pieces into a coating pan and apply coating solution, partially dry. Repeat coating step until desired coating thickness or weight is achieved. Apply clear 70% aqueous sorbitol solution and, whilst wet, dry spray speckles onto product surface, dry. Apply second coat of clear 70% sorbitol solution followed by wax coating and allow product to fully dry.

While particular embodiments of the present invention have been illustrated and described, it would be obvious to those skilled in the art that various other changes and modifications can be made without departing from the spirit and scope of the invention. It is therefore intended to cover in the appended claims all such changes and modifications that are within the scope of this invention.

What is claimed:

1. An oral care composition comprising an orally acceptable carrier, at least about 0.1% by weight of a water-soluble or water-dispersible copolymer comprised of one or a mixture of vinyl pyrrolidone (VP) monomeric units and one or a mixture of C2-C12 alkenyl C1-C19 saturated alkyl carboxylate (AC) monomeric units, and one or a mixture of oral care agents selected from the group consisting of polyphosphates having a chain length of at least about 3, abrasive polishing agents, and teeth bleaching actives,

wherein said oral care compositions is in a form selected from toothpaste, dentifrice, tooth powder, topical oral gel, mouthrinse, denture product, mouthspray, lozenge, oral tablet, chewing gum and impregnated dental implement and wherein said composition provides enhanced cleaning, whitening and stain removal from teeth.

2. An oral care composition according to claim 1 wherein the copolymer is prepared by copolymerizing one or a mixture of vinyl pyrrolidone (VP) monomers with one or a